

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1. (Currently Amended) A silicone rubber graft copolymer with core-shell structure, comprising: having

at least one core comprising:

a) an organosilicon polymer represented by the following formula



~~where~~ wherein x = from 0 to 99.5 mol%, y = from 0.5 to 100 mol%, z = from 0 to 50 mol%,

~~where~~ wherein R ~~means~~ represents identical or different alkyl or alkenyl radicals having from 1 to 6 carbon atoms, aryl radicals, or substituted hydrocarbon radicals, and ~~also~~

at least one shell c) comprising an organic polymer, prepared by a process which comprises

preparing the organic shell c) by free-radical polymerization of monomers at a temperature of not higher than 65°C and

adding an initiator in at least two portions to ~~[[the]]~~ a reaction vessel, a further addition taking place at least 2 minutes after the start of the polymerization.

Claim 2. (Currently Amended) The silicone rubber graft copolymer as claimed in claim 1, wherein the initiator is added in three ~~[[,]]~~ portions to the reaction vessel, each addition taking place after at least 2 minutes.

Claim 3. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the initiator is added continuously over a period of at least one hour to the reaction vessel.

Claim 4. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the monomers are added continuously over a period of at least one hour to the reaction vessel.

Claim 5. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the monomers and the initiator are added in the form of a mixture to the reaction vessel.

Claim 6. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the concentration of initiator in the reaction vessel is kept below 0.05% by weight, based on the entire reaction mixture.

Claim 7. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein between the core a) and the shell c) there is another spherical polydialkylsiloxane layer b) present, comprising ($R_2SiO_{2/2}$) units.

Claim 8. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the particle diameter of the silicone rubber graft copolymers is in the range from 10 to 300 nm.

Claim 9. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the graft copolymer comprises

from 0.05 to 95% by weight, based on the total weight of the copolymer, of a core a) comprising an organosilicon polymer,

from 0 to 94.5% by weight, based on the total weight of the copolymer, of a polydialkylsiloxane layer b), and

from 5 to 95% by weight, based on the total weight of the copolymer, of a shell c) comprising organic polymers.

Claim 10. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 1, wherein the shell c) comprises polymerized (meth)acrylates.

Claim 11. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 10, wherein the shell c) is prepared via polymerization of a mixture in which methacrylates and acrylates are present.

Claim 12. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 11, wherein the shell c) is prepared via polymerization of a mixture in which methyl methacrylate and at least one acrylate having from 1 to 8 carbon atoms are present.

Claim 13. (Currently Amended) The silicone rubber graft copolymer as claimed in claim 1, wherein the vinyl groups are present in the core a) ~~comprising an organosilicon polymer~~ prior to preparation of the organic shell c).

Claim 14. (Previously Presented) The silicone rubber graft copolymer as claimed in claim 13, wherein the content of the vinyl groups in the core a) is in the range from 2 to 3 mol%, based on the weight of the core.

Claim 15. (Previously Presented) A process for preparing silicone rubber graft copolymers as claimed in claim 1, wherein a core is prepared from polysiloxane by the emulsion polymerization process, and then organic monomers are grafted onto the resultant polysiloxane by a free-radical route, the initiator being added continuously during the free-radical polymerization.

Claim 16. (Currently Amended) The process as claimed in claim 15, wherein ~~use is made of~~ an initiator system is used in which a reducing agent is present.

Claim 17. (Currently Amended) The process as claimed in claim 15, wherein ~~use is made of~~ butyl hydroperoxide is used as initiator.

Claim 18. (Previously Presented) An impact-resistant molding composition comprising silicone rubber graft copolymers as claimed in claim 1.

Claim 19. (Previously Presented) The impact-resistant molding composition as claimed in claim 18, wherein the molding composition comprises poly(meth)acrylates.

Claim 20. (Previously Presented) The impact-resistant molding composition as claimed in claim 18, wherein the molding composition comprises styrene-acrylonitrile polymers.

Claim 21. (Previously Presented) The impact-resistant molding composition as claimed in claim 20, wherein at least one styrene-acrylonitrile polymer is prepared via polymerization of a mixture which comprises

from 70 to 92% by weight of styrene

from 8 to 30% by weight of acrylonitrile, and

from 0 to 22% by weight of other comonomers, based in each case on the total weight of the monomers to be polymerized.

Claim 22. (Currently Amended) The impact-resistant molding composition as claimed in claim 18, wherein the molding composition further comprises at least one acrylate-rubber-based impact modifier.

Claim 23. (Previously Presented) The impact-resistant molding composition as claimed in claim 18, wherein the molding composition comprises

f1) from 0 to 95% by weight of (meth)acrylate polymers,

f2) from 0 to 45% by weight of styrene-acrylonitrile polymers,

f3) from 5 to 60% by weight of silicone rubber graft copolymers

f4) from 0 to 60% by weight of polyacrylate-rubber-based impact

modifiers, based in each case on the weight of components f1) to f4) and conventional additives.

Claim 24. (Previously Presented) A molding produced from a molding composition as claimed in claim 18.

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Claim 25. (Currently Amended) The impact-resistant molding as claimed in claim 24, wherein the molding has a Vicat softening point according to ISO 306 (B50) of at least 85°C, a notched impact strength NIS (Izod 180/1eA, 1.8 MPa) according to ISO 180 of at least 3.0 kJ/m² at -20°C and of at least 2.5 kJ/m² at -40°C, a modulus of elasticity according to ISO 527-2 of at least 1500 MPa.

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BASIS FOR THE AMENDMENT

The claims have been amended to correct minor informalities.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-25 will now be active in this application.

INTERVIEW SUMMARY

Applicants wish to thank Examiner Peng for the helpful and courteous discussion with Applicants' Representative on February 8, 2006. During this discussion it was noted that the attached proposed amended claims should overcome the claim objections and the rejections as being indefinite. The Examiner may withdraw the provisional double patenting rejection once it is the only remaining rejection.

Regarding Mautner et al it was noted that they do not disclose or suggest preparing the organic shell c) by free-radical polymerization of monomers at a temperature of not higher than 65°C and adding an initiator in at least two portions to a reaction vessel, a further addition taking place at least 2 minutes after the start of the polymerization. Due to the specific process, a specific structure is obtained which has superior properties as shown by the Examples in the specification.